

REMARKS/ARGUMENTS

In response to the Office Action mailed June 27, 2005, Applicants amend their application and request reconsideration. In this Amendment claims 1-8, 11, and 12 are cancelled, leaving claims 9 and 10 pending. This Amendment is being filed with an RCE including a request for suspension of action for three months for which the requisite fees are being paid.

The drawing objection is moot. The drawings were objected to as not showing the arrangement in claim 9 regarding vias in the cap film. Claim 9 has been amended and no longer recites that the vias are in the cap film, overcoming the drawing objection. It is clear from the figures of the patent application, such as Figure 2A, that the vias 28 are present in the low-k dielectric film 22.

The amendments of claim 9 are clearly supported by the embodiment of the invention illustrated in Figure 2A of the patent application. Comparing that embodiment of the invention to claim 9, it can be seen that the second wiring M2 is partially within the cap film 23 and has a surface that is coplanar with the surface of the cap film.

In view of the claim cancellations, the only prior art rejection still pertinent is the rejection of claims 9 and 10 as anticipated by Hagihara (JP 2001-168093, hereinafter Hagihara). The cognate US patent, 6,570,243 was cited as providing a translation of Hagihara. This rejection is respectfully traversed as to amended claims 9 and 10 presented here.

The application of Figures 1(e) and 2 of Hagihara to the claims examined is understood. However, those structures cannot meet the limitations of amended claims 9 and 10. The Examiner compared the metal wiring 8 of Hagihara to the second wiring of claim 9. However, it is apparent that the wiring 8 in Hagihara is on top of the cap layer 6 and not partially within that cap layer. It is the vias that are within the cap layer 6 of Hagihara according to the Examiner's analysis and application of Hagihara to the examined claims. Given that definition of the vias, the wiring layer is clearly on top of the cap layer 6 and not within that cap layer. Applicants agree that a surface of the wiring layer 8 is coplanar with the cap layer 6 in Hagihara because the second wiring layer 8 is deposited on the cap layer as well as in the holes 7 to form the vias. However, because of that method of formation, the second wiring layer 8 can never be partially with the cap layer as in the structure of claim 9.

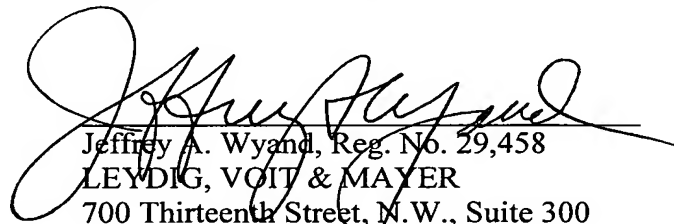
Anticipation requires that all of the elements of a claimed structure be disclosed in a single prior art reference. Since there is at least one difference between the structure claimed in claim 9 and the structure relied on Hagihara, the rejection cannot be properly maintained.

Claim 10 was rejected as a product-by-process claim. This assertion is incorrect and respectfully traversed. A product-by-process claim defines a structure by the method of making the structure. Claim 10 merely describes the first and second wirings, the vias, and the dummy vias as having a damascene structure. The damascene structure is a definite and recognized structure in the art of wiring in integrated circuits. This description pertains to a particular arrangement of metal layers to one of skill in the art and does not connote a process. Therefore, the limitation of claim 10 must be given weight in the examination of the claims.

Claim 10 distinguishes from Hagihara because Hagihara does not disclose wirings with a damascene structure and because claim depends from a claim not anticipated by Hagihara. For both of these reason, the rejection of claim 10 should be withdrawn.

Reconsideration and allowance of claims 9 and 10 are earnestly solicited.

Respectfully submitted,


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